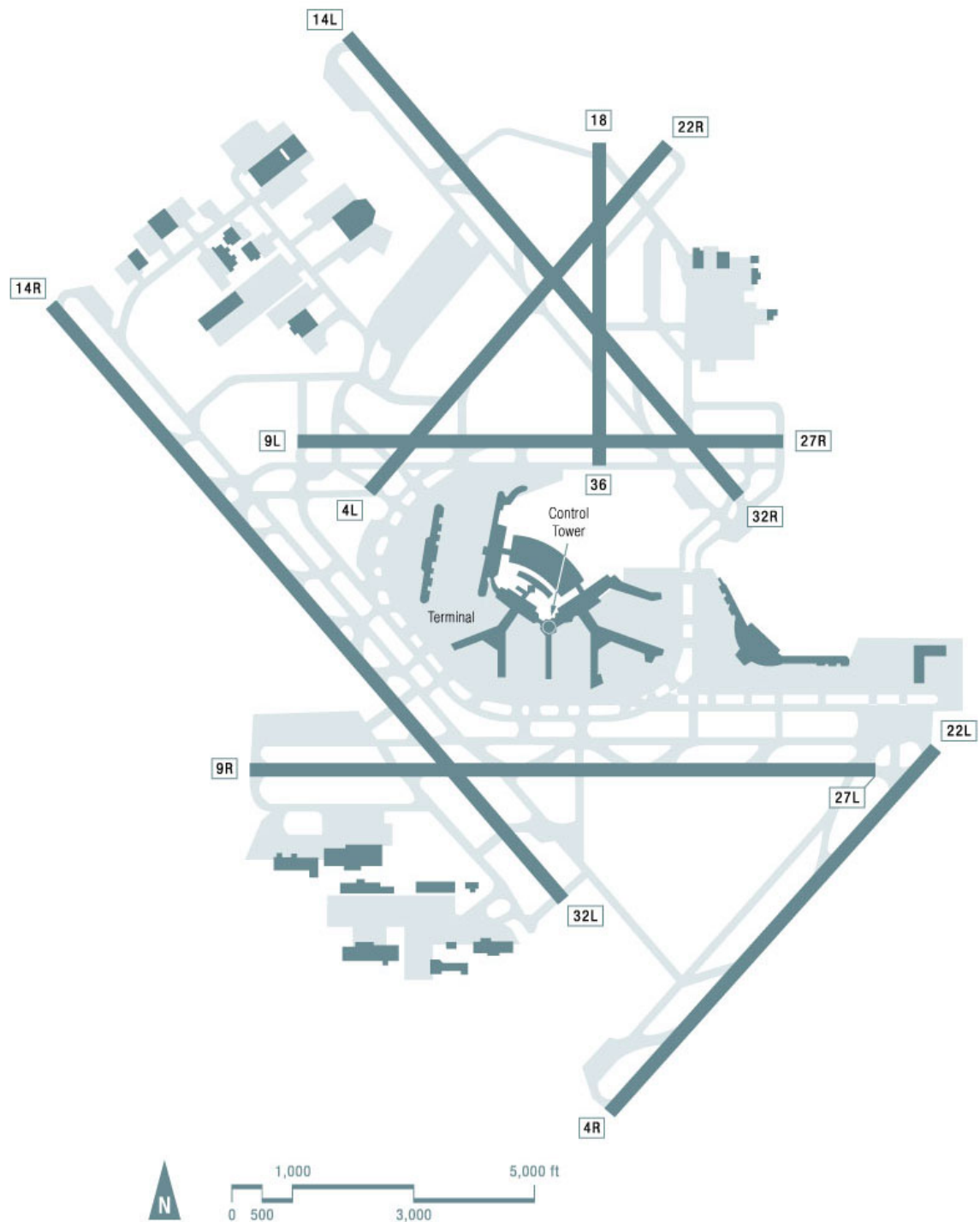


## CHICAGO – Chicago O'Hare International (ORD)



Note: Runway 18/36 at ORD has been decommissioned.

## CHICAGO – Chicago O'Hare International Airport (ORD)

### Benchmark Results

- The capacity benchmark for Chicago O'Hare International Airport today is 190-200 flights per hour (arrivals and departures) in Optimum and Marginal weather.
- The FAA facility at ORD reported a rate of 100 arrivals and 100 departures per hour in Optimum and Marginal conditions when the most common runway configuration was in use. Procedural changes at ORD since January 2003 have reduced the frequency of occurrence of these rates. The average acceptance rate will be lower, since wind conditions frequently force the use of other configurations with lower rates. Arrival and departure rates may also be affected by traffic flow control measures, such as mile-in-trail restrictions caused by en route weather or airspace constraints.
- The benchmark rate decreases in IFR conditions to 136-144 flights per hour, for the most commonly used runway configuration in these conditions. Throughput may be less when ceiling and visibility are low, or when a less-favorable runway configuration is in use. Alternatively, other runway configurations may provide higher capacity.
- Note that these benchmark rates represent balanced operations. Greater throughput may be possible during arrival or departure peaks.
- Planning is underway for an extensive reconfiguration of ORD. The O'Hare Modernization Plan (OMP) envisions six parallel runways and triple simultaneous instrument approaches. These changes would significantly increase the benchmark rate at ORD. However, environmental studies are still underway, and the FAA has not issued a Record of Decision (ROD) for the new runways. The proposed new runways were not included in OEP v5.0. Therefore, the effect of the OMP has not been included in this analysis.
- Planned technological improvements at ORD include CEFR, which could allow suitably equipped aircraft to achieve visual separations in Marginal conditions. However, CEFR is not expected to have a significant effect on the benchmark rates at ORD, since radar separations are typically used even in Optimum conditions.
- Another planned improvement at ORD is revised procedures for operations on intersecting runways. However, these revised procedures were not considered in determining the benchmarks, because insufficient information on the procedures was available to determine whether they would apply to the configurations modeled, or what the effect would be.
- In the following charts, please note that some hourly traffic points fall outside the calculated capacity curves at ORD. There are many possible reasons why this may occur without affecting operational safety. Efficient aircraft sequencing or above-average pilot and controller performance can contribute to higher throughputs. Also, actual weather conditions during the hour may have been better than the hourly readings in the database, allowing more efficient ATC procedures than were modeled.

*These values were calculated for the Capacity Benchmarking task and should not be used for other purposes, particularly if more detailed analyses have been performed for the airport or for the individual programs.*

***The list of Planned Improvements and their expected effects on capacity does not imply FAA commitment to or approval of any item on the list.***

## CHICAGO – Chicago O’Hare International Airport (ORD)

| <i>Weather</i>  | <i>Scenario</i>                | <i>Configuration</i>  | <i>Procedures</i>                             | <i>Benchmark Rate<br/>(per hour)</i> |
|---|--------------------------------|---|---|--------------------------------------|
| <b>Optimum Rate</b><br><br>Ceiling and visibility<br>above minima for visual<br>approaches (1900 ft<br>ceiling and 3 mi visibility)<br><br><i>Occurrence: 84%</i> | Today                          | Arrivals on Runways 9L, 9R, 4R<br>Departures on 32L, 32R, 4L, 9L<br><i>Frequency of Use: 35% in<br/>Optimum conditions</i>  | Instrument<br>approaches, radar<br>separation | <b>190-200</b>                       |
|   | New Runway                     | N/A   |   | <b>N/A</b>                           |
|   | Planned improvements<br>(2013) | Same  |   | <b>190</b>                           |
| <b>Marginal Rate</b><br><br>Below visual approach<br>minima but better than<br>instrument conditions<br><br><i>Occurrence: 7%</i>                                 | Today                          | Arrivals on Runways 9L, 9R, 4R<br>Departures on 32L, 32R, 4L, 9L<br><i>Frequency of Use: 36% in<br/>Marginal conditions</i> | Instrument<br>approaches, radar<br>separation | <b>190-200</b>                       |
|   | New Runway                     | N/A   |   | <b>N/A</b>                           |
|   | Planned improvements<br>(2013) | Same  |   | <b>190</b>                           |
| <b>IFR Rate</b><br><br>Instrument conditions<br>(ceiling < 1000 ft or<br>visibility < 3.0 miles)<br><br><i>Occurrence: 9%</i>                                     | Today                          | Arrivals on Runways 9L, 9R<br>Departures on 32L, 32R, 4L, 9L<br><i>Frequency of Use: 31% in IFR<br/>conditions</i>          | Instrument<br>approaches, radar<br>separation | <b>136-144</b>                       |
|   | New Runway                     | N/A   |   | <b>N/A</b>                           |
|   | Planned improvements<br>(2013) | Same  |   | <b>136</b>                           |

**NOTE:** Data on frequency of occurrence of weather and runway configuration usage is based on FAA ASPM data for January 2000 to July 2002 (excluding 11-14 September 2001), 7 AM to 10 PM local time.

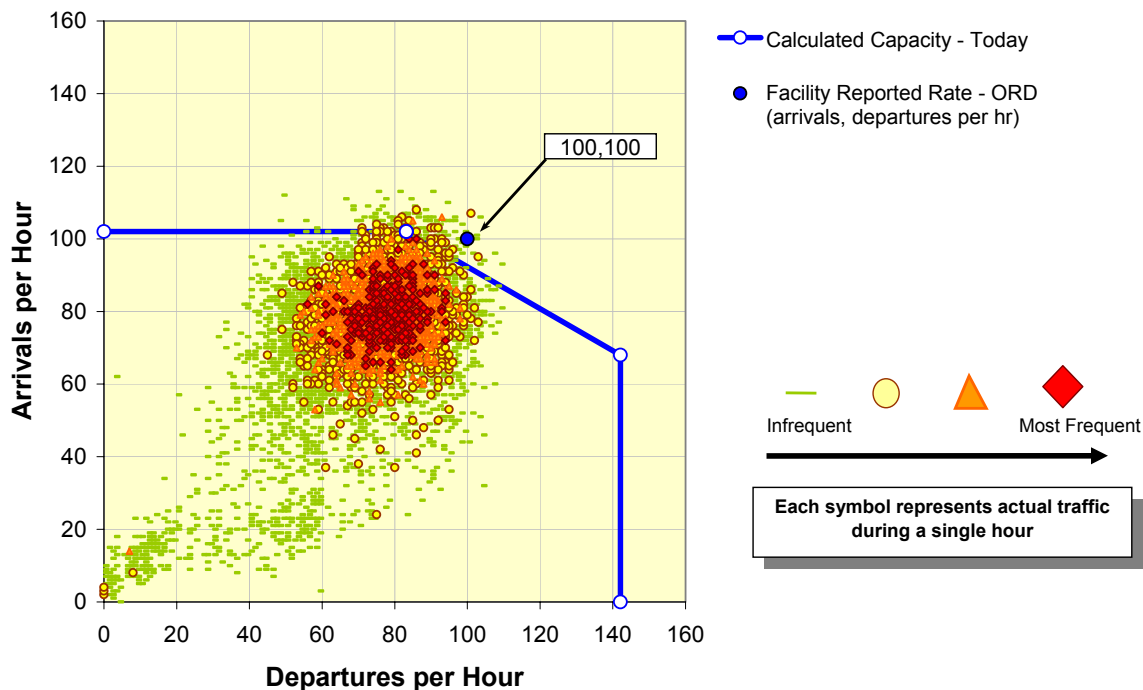
**Planned Improvements** at ORD include:

- CEFR, for visual approaches in Marginal conditions.
- Improved intersecting runway procedures.

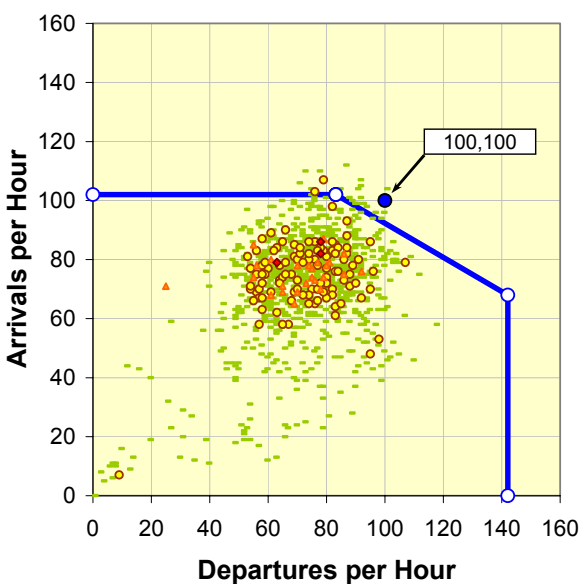
Additional information on these improvements may be found in the Introduction and Overview of this report, under “Assumptions.”

## Calculated Capacity (Today) and Actual Throughput

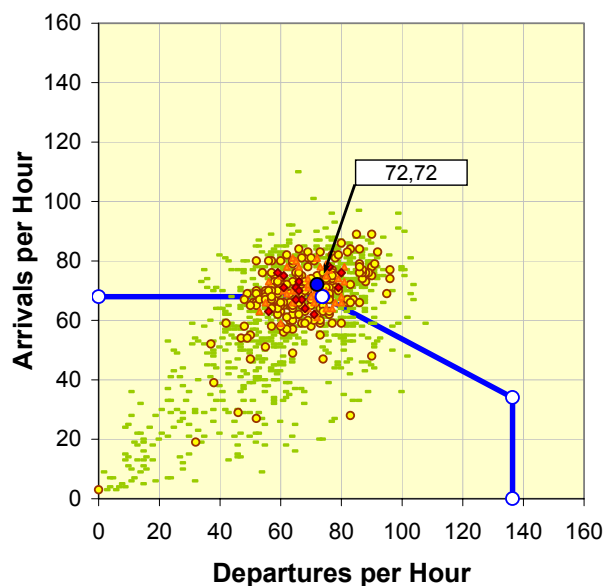
### Optimum Rate



### Marginal Rate



### IFR Rate



Hourly traffic data was obtained from the FAA ASPM database for January 2000 to July 2002 (excluding 11-14 September 2001), 7 AM to 10 PM local time. Facility reported rates were reviewed by ATC personnel at ORD.